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ABSTRACT

The purpose was to investigate the long-term impact of the California State University (Sacramento) Academic Talent Search Summer School (ATSSS) by means of a longitudinal follow-up of students at an interval of 4 years. A group of 100 academically talented middle school students (grades 7 through 9) were selected from the 350 participants in the ATSSS at California State University in 1984. Qualifications for the program were based on scores on the Scholastic Aptitude Test or equivalent test scores. During the summer, students studied fast-paced mathematics, writing, and/or Latin. Four years later, in 1988, a questionnaire was mailed to the selected students to determine their high school experiences. A response rate of 80% of the 100 locatable students gave a sample that compared favorably with the 1984 summer school group. Responses were analyzed descriptively using frequency distribution and cross-tabulation tables. Results indicate that: (1) program participants viewed the experience as highly positive; (2) academic acceleration through the program was associated with positive changes in school grades as indicated by grade point averages, interest in school and learning, and in students' abilities to get along with intellectual peers, age peers, and adults; (3) the program contributed to self-esteem and feelings of self-control; and (4) participants performed well in sports as well as academics. No pattern of social maladjustments or harmful results from the acceleration was found. (TJH)

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Acceleration for the Academically Talented: A Follow-up of the Academic Talent Search Class of 1984

By
Terry A. Thomas

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ABSTRACT

The purpose of this study was to investigate the impact of academic acceleration on selected non-cognitive areas. Specifically the purpose was to investigate the long-term impact of the California State University, Sacramento's Academic Talent Search Summer School by means of a longitudinal follow-up of students at an interval of four years.

A group of academically talented middle-school students (grades 7-9) participated in the Academic Talent Search Summer School at California State University, Sacramento in 1984. Qualifications for the program were based on SAT or equivalent test scores. During the summer students studied fast-paced mathematics, writing and/or Latin. Four years later, in 1988, a questionnaire was sent seeking information regarding their high school experiences. A response rate of 80% of the locatable students gave a sample that compared favorably with the 1984 summer school group. Responses were analyzed descriptively using frequency distribution and cross tabulation tables.

The impact of the CSUS Academic Talent Search Program was viewed by former participants as highly positive after a four-year interval. Academic acceleration through this program was associated with positive changes in school grades (GPA), interest in school and learning, and in students' abilities to get along with mental peers and adults. Social relationships with age peers, acceptance of self, and emotional stability generally showed moderately favorable rather than unfavorable changes. During high school, the respondents were active in a wide variety of extracurricular activities, and they participated in free-time activities which appeared to be typical for the age group. These students had positive self-concepts, viewed themselves as being "in control" of their lives, and had formulated plans for the future, including career goals. They received awards and honors in sports as well as in wide variety of academic fields. Students' responses to open-ended questions also showed a generally positive attitude toward the impact of this program.

This study did not reveal any pattern of social maladjustments or harmful results from the acceleration experienced by these students. Quite the contrary, the impact of acceleration through this program was overwhelmingly positive in the academic and affective areas examined.

March, 1989

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Background.

What kind of education is appropriate to students who demonstrate unusually high academic talent? Should these students be allowed to accelerate through the traditional curriculum ahead of their peers or should they be restricted to progress in the basic subjects at the same pace as their less academically talented agemates? While studies have tended to show the benefits of academic acceleration for highly able learners (Feldhusen, Proctor,& Black, 1986; Daurio, 1979; Kulik and Kulik, 1984; Stanley , 1979a), this educational strategy has not been the favored way of dealing with such students in the schools. Some well-intentioned educators fear that academic acceleration will have a negative impact on the social and emotional adjustments, attitudes toward school, and the self-concepts of accelerated students.

A number of "Talent Search" summer programs have been established across the country to provide academic acceleration opportunities for highly able middle school students. Such summer programs offer instruction in academic areas that are not available to these students in a typical school setting, and the pace of instruction is substantially faster than regular schools would provide even for older children. Do these programs help or hinder in the total development of the youngster? Research is needed to confirm the long-term benefits of these programs and to reassure those who fear the worst consequences.

The academic benefits of acceleration have been well established through research. Kulik and Kulik's (1984) meta-analysis of research found that achievement levels of accelerated students were higher than non-accelerated students of the same age and were more like the achievement of older students. "Together, experimental and correlational studies provide strong evidence that acceleration leads to greater student achievement in school and in life for talented students" (p. 89). Recent studies have shown that knowledge gained by gifted adolescents from advanced coursework is substantial and long-lived (Peterson, Brounstein, and Kimble, 1988). Brody and Benbow (1987) reported that the most highly accelerated students had higher grades (GPA) and class ranks than lesser accelerated groups. "Clearly, achievement in high school coursework did not suffer as a result of the accelerative options selected" (p. 107).

Only a relatively small number of studies have investigated the non-cognitive outcomes of accelerated instruction. The findings of these studies were characterized by Kulik and Kulik (1984) as sketchy and inconclusive. Hood (1987) found no evidence of negative impact on attitudes, self-concept, or social development as a result either of a summer school acceleration program or "permanent" acceleration in a regular school. Kerr and Colangelo (1987) found an extraordinarily high rate of participation by academically talented students in extracurricular activities. "Apparently, as academic talent increases, so does expectation of involvement in all that campus life has to offer" (p. 47). Stanley (1979b) expressed concern that not offering acceleration options to the academically talented students could result in emotional and academic problems for them.

To investigate further the impact of academic acceleration on these non-cognitive areas, a longitudinal research study was developed using students in the Academic Talent Search Program at California State University, Sacramento (CSUS). The purpose of this study was to investigate the long-term impact of the CSUS Academic Talent Search Summer School. Areas of research interest included academic background, educational awards, honors, attitudes toward school, concepts of self, educational goals, and career aspirations. This study incorporated the first of a planned series of follow-up contacts with these students. Subsequent contact and follow-up

surveys of this group are planned for 1992 and 1996. Another group of students from the 1983 Academic Talent Search Summer School was surveyed with a similar questionnaire. The findings from the survey of this group are reported elsewhere (see Thomas, 1987).

The subjects were 100 students selected from the 350 participants in the 1984 CSUS Academic Talent Search. Seventh, eighth, and ninth grade students who had scored in the upper ten percent on the mathematical or verbal part of standardized achievement tests were eligible to participate in the Talent Search by taking the Scholastic Aptitude Test (SAT) or the School and Colleges Ability Tests (SCAT), which are examinations designed primarily for college-bound high school seniors. Students who met score criteria were eligible to participate in a summer school program on the campus of CSUS. Criteria for participating in the mathematics classes were an SAT-M score of 450 or above; expository writing classes required SAT-V scores of 400 or above. Foreign Language classes in first and second year Latin required a minimum of SAT-V 350. Students in these curricular areas were selected for this study because they took courses accelerated in terms of pace and timing. Student achievement was impressive. The mathematics students demonstrated an achievement level of more than a full year's growth in algebra and pre-calculus mathematics. The average growth in mathematics was 1.25 courses, each course equivalent to a year of instruction in typical high schools. In order for students to achieve equivalent to a full-course, they had to score at or above the 90th percentile on the appropriate Cooperative Mathematics Achievement Tests published by Addison Wesley. Writing students showed exceptional achievement on tests that were administered pre- and post-instruction. Student achievement was assessed on the Sequential Test of Educational Progress (STEP), English Expression, the Test of Standard Written English, and an evaluation of students' writing samples. Latin students were assessed through daily written work, oral fluency, and objective testing, including the National Latin Examination. Most students gained a full year of growth in language achievement. These students in the 1984 Academic Talent Search Summer School were clearly talented academically and demonstrated the ability to achieve in mathematics, writing, and Latin classes.

Procedures.

Four years after participating in the Academic Talent Search Summer School, subjects were mailed a questionnaire containing 115 items. The data collecting procedures involved verifying addresses of former students, eliminating from the mailing list those whose addresses were no longer valid, mailing out survey questionnaires, and follow-up contact by post card and telephone to acquire a high return rate. Completed questionnaires were returned by 80% of the 100 locatable students for a response rate of 80%. While the return rate of 80% was less than desired, it was considered adequate for the purpose of this study. The students reported their experiences, academic achievements, and affective changes which were a result of Academic Talent Search participation. The responses were analyzed using frequency distribution and cross tabulation tables.

Responses.

Students who returned questionnaires were, as a group, very similar to the student body in the 1984 summer school. Slightly more boys than girls responded (55% male to 45% female). Ethnically, the students were 63% White, 16% Asian, and 13% other minority groups (Black, Hispanic, and Filipino). Eight respondents declined to state their ethnic identity. Among this group, 86% had taken mathematics, 6% attended writing classes, 25% were Latin language students, and 34% participated in study skills along with their other classes. More than half of the students (54%) had returned to the CSUS Academic Talent Search Summer Schoolafter their 1984 experience. Forty percent attended two summers, 8% attended three summers and 6% attended four summers.

Education Background.

Eighty percent of the respondents were still in high school grades 11 or 12. Most of the respondents (66%) reported they were attending (or had attended) the public high school in their home district. Eighteen percent attended a private school. Five percent reported attending a special

public high school (magnet program) and another 5% attended more than one of these types of high schools. The majority of students (82%) expected to graduate (or had already graduated) from high school on time with their agemates. Some students (9%) graduated a year ahead of their peers, and 5% reported taking a test to get out of school early without graduating. High school grades for this group were impressively high. Almost a quarter of the students (24%) had GPA's above 4.0 due to honors classes that were specially weighted for the extra work involved. The majority of the students (52%) had GPA's between 3.5 and 4.0. Only 5% reported grades averaging below the "B" level (below 3.0). Overall the mean GPA was 3.7 with a standard deviation of 0.37.

School Articulation.

At the conclusion of the summer classes, Academic Talent Search staff sent each student a letter describing the program and that student's performance level. In mathematics and Latin, the Talent Search staff made recommendations regarding placement in the next level of instruction, and all successful students received a recommendation for credit and grade to be entered on the school transcript. The questionnaire asked students about the school's response to these staff recommendations. Responses indicated that schools tended to maintain a "conservative" attitude regarding academic acceleration. Three quarters of the students (75%) reported that they had shared these letters with school personnel. Sixty-eight percent asked the school for acknowledgement through credit, but only 44% were granted credit and grade, and 24% received a transcript entry only with no credit or grade awarded. Twenty percent were required to take a challenge examination over the course content prior to being granted credit or grade, but 18% were required to repeat a full class whose content had been mastered through the Academic Talent Search Summer School. A third of the students (33%) were allowed placement into advanced classes based on their summer school achievement. It was interesting to note that 22% of the students had to travel to another campus in order to have access to the advanced class.

Acceleration.

These students experienced a variety of opportunities for academic acceleration in school. Grade skipping was not the most common means of acceleration, with only 17% of the students reporting the use of this option. Nine percent skipped a primary grade, 1% skipped an intermediate grade, 3% bypassed a junior high grade, and 4% skipped a high school grade. Almost all of the students (86%) participated in advanced classes in high school. Twenty-two percent participated in independent study activities, and 57% earned college credit through the Advanced Placement Program (APP) sponsored by the College Board. The same number of students (57%) took university courses for credit prior to high school graduation. Only 13% reported leaving high school early (through early graduation or equivalence testing) to attend college. When asked about their feelings regarding academic acceleration, the majority of students (51%) indicated that they were satisfied with what they had experienced. Thirty-eight percent reported they wished they had accelerated more than they did. Only 8% reported they wished they had accelerated less.

When asked about how educational acceleration had affected them, students reported favorable changes in school-related areas. As shown below, students reported favorable changes in school grades, interest in school and learning, and in the ability to get along with mental peers and adults. Favorable changes also occurred in acceptance of self as a result of their academic acceleration. A few unfavorable changes were reported, the most frequently cited change was moderately unfavorable in the area of general emotional stability (14%). Eleven percent reported a moderately unfavorable change in their social life in general, and 10% reported a moderately unfavorable change in their ability to get along with age peers. The trend was clearly toward favorable changes. The overwhelming majority of these students viewed their acceleration as having favorable consequences for them.

TABLE 1

How has educational acceleration affected you in these areas?

	Strongly Favor %	Moderate Favor %	No Change	Moderate UnFavor %	Strongly Unfavor %
School grades (GPA)	27	34	28	9	1
Interest in school	32	37	24	3	3
Interest in learning	37	37	23	1	1
Able to get along w/age peers	6	27	53	10	3
Able to get along w/mental peers	25	42	29	3	0
Ability to get along w/adults	24	32	42	1	0
Social life in general	8	27	51	11	1
General emotional stability	10	23	49	14	3
Acceptance of self	9	38	43	8	1
Acceptance of differences in others	15	23	56	5	0

Extra Curricular Activities.

Students were asked to rate their participation in extra curricular activities while in high school. As shown in Table 2 below, these students were most active in academic clubs, service clubs, athletics, and honor societies. They were least active in student government, fine arts, and school booster clubs (e.g., cheerleaders). Music, journalism, and student government were rated in the middle range. The mean number of leadership roles reported by this group was 1.25 (standard deviation 1.29).

TABLE 2

Participation in Extra Curricular Activities

	% Joined, but not active	% Partic'd Occas'ly	% Partic'd Reg'ly	% Leader/ Officer	% Weighted Index
Academic clubs	10	16	28	33	2.58
Service clubs	9	23	19	23	2.03
Athletics	1	9	42	11	1.90
Honor society	14	25	9	15	1.52
Music	3	5	19	11	1.15
Journalism	4	6	13	14	1.10
Perform arts	1	10	22	3	0.96
Student gov't	3	10	0	15	0.84
Fine arts	3	11	11	0	0.59
Booster clubs	1	8	5	0	0.32

Free time Activities.

Students were asked about the the extent of their involvement in free-time activities outside of school. Twelve activities were presented for students to indicate the frequency of involvement on a scale of "Never," "Rarely," "Occasionally," and "Regularly." The responses were weighted and the activities were rank ordered. As shown in Table 3, below, music was ranked first, just above socializing (including talking to friends on the telephone). Movies and television and recreational reading were ranked just above work as free-time activities. The lowest ranked activities were board games, collecting, arts and crafts, and sewing. Sports and cooking were mid-ranked activities, with individual and spectator sports outranking team sports in popularity. These data

tend to describe a gregarious teen-ager who enjoys listening to music, talking with friends, watching TV and movies, and reading books for entertainment.

TABLE 3

Free Time Activities

	% Never	% Rarely	% Occ'ly	% Reg'ly	Index
Music	7	1	4	89	2.75
Socialize	4	6	10	80	2.66
Movies / TV	0	11	20	68	2.57
Recreational reading	6	13	37	46	2.23
Work / job	17	14	16	52	2.03
Individual sports	16	19	20	44	1.92
Spectator sports	14	33	29	24	1.63
Cooking	19	27	27	27	1.59
Team sports	31	18	15	35	1.54
Board games	20	41	27	13	1.32
Collecting	28	30	25	16	1.30
Art projects	30	33	25	11	1.18
Sewing	54	30	13	3	0.63

Honors and awards.

These students had won an impressive array of awards and honors while in high school. As shown in the table below, most of the students (91%) received recognition in general academic areas such as the Academic Decathlon, Odyssey of the Mind (OM), Future Problem Solving, National Merit Scholar program, and similar competitions. Mathematics awards were a distant second at 56 , followed by sports (49%), writing (39%), and science (38%). Other awards and recognitions came in language (32%), visual and performing arts (30%), music (27%), speech (27%), and spelling (23%). The mean number of awards earned was an amazing 4.33 (standard deviation 2.60). Students won an average of 0.92 (standard deviation 1.32) State and National level awards.

TABLE 4

Awards and Honors

	% School	% District	% State	% Nat'nal	% Total	Order
Academic & general	40	23	18	10	91	1
Mathematics	25	18	8	5	56	2
Sports	25	16	8	0	49	3
Writing	16	13	8	3	39	4
Science	23	9	5	1	38	5
Foreign language	19	6	1	5	32	6
Visual & performing arts	21	5	4	0	30	7
Music	13	3	10	1	27	8
Speech	6	16	4	0	27	9
Spelling	14	5	4	0	23	10

Self Concept.

The questionnaire contained a series of items designed to assess self concept. Students were asked to rate themselves on a five-point scale between extremes of nine self concept variables. As the table below shows, the students rated themselves as strongly independent, stable people. They viewed themselves as warm, practical, somewhat dominant, and venturesome. Being slightly radical and extroverted, with a touch of wildness, also fit their concepts of self. Overall they would be described as people-oriented and able to cope with life on their own terms. There was no evidence that these students viewed themselves as having problems in these areas of self concept.

TABLE 5

Self Concept

(Percentages)

	A	B	C	D	E	
Cold	1	5	24	49	19	Warm
Restrained	10	16	42	27	3	Wild
Shy	3	18	24	39	15	Venturesome
Dependent	0	5	23	39	33	Independent
Submissive	1	9	35	42	13	Dominant
Conservative	6	15	48	24	5	Radical
Practical	15	47	25	9	3	Impractical
Stable	37	33	18	8	4	Unstable
Introverted	5	19	43	22	11	Extroverted

Locus of Control.

To assess social-emotional well-being of these students, eight items were combined to form a locus of control scale. Students were asked to what extent they agreed with statements related to locus of control. Positive statements reflecting an internalized locus of control included:

"Hard work is more important than good luck for success."
"I feel I am a person of worth and high potential."
"I am able to do things as well or better than most people."
"On the whole, I am satisfied with myself."
"Generally, people who know me, like me for who I am."

The three statements indicating a diffused or external locus of control included:

"Every time I try to get ahead, something or someone stops me."
"Planning only makes a person unhappy, since plans seldom ever work out."
"People who accept their condition in life are happier than those who try to change."

Student responses agreed with the five internal locus of control statements and disagreed with three external locus of control statements as shown in the table below.

TABLE 6

Locus of Control

	% Strongly Agree		% No Opinion		% Strongly Disagree
Work is more important than luck	32	51	6	11	0
I Am of worth and high potential	58	30	10	1	0
I am able to do as well as most	41	44	13	3	0
When I try, things stop me	3	9	14	59	15
Planning is useless, Things never work out	0	5	10	43	42
Happier if accept cond'n, Not try to change	1	4	29	37	29
I am satisfied with myself	20	53	15	10	1
People like me for who I am	34	47	16	1	1

Goals and Aspirations.
These students had lofty plans regarding their future education. The questionnaire asked, "What is the highest educational level you are planning to attain?" Over a third (37%) reported that level was a master's degree. Another 36% reported they were planning on earning a doctorate (Ph.D. or MD). The law degree and post graduate certificate (teaching or CPA) were each selected by 4%. Eight percent identified the bachelor's degree level as their ultimate goal. Only one respondent selected less than a 4-year university education as an educational goal.

TABLE 7

Goals and Aspirations

How important in your life is...	% Very Important	% Imp'nt	% Not Imp'nt	Rank Index
Having a good education	86	13	1	2.53
Having strong friendships	82	18	0	2.48
Being successful in my line of work	81	19	0	2.35
Having leisure time for interests/hobbies	73	25	0	2.15
Marrying and having happy home life	68	22	10	2.19
Travel, seeing the world	43	44	13	1.25
Earning lots of money	39	41	20	1.19
Gaining the respect and admiration of peers	41	52	8	1.05
Correcting social and economic inequities	24	53	23	0.85
Having children, starting my own family	37	34	29	0.85
Being a leader in my community	11	52	37	0.25
Living close to my parents or relatives	3	38	58	0.05

As shown in the Table 7 students reported whether each of 12 goal statements was "very important, important or not important" to them. In ranked order, students identified having a good education, strong friendships, success in work, and having leisure time for interests/hobbies as most important. Least important were correcting social and economic inequities, raising children, being a community leader, and living close to parents. Students rated marrying and having a happy home life, travel, earning lots of money, and gaining the respect/admiration of peers as only mid-level in their ranked set of values.

Career Aspirations/Interest.
Students were asked to indicate their level of interest in each of 19 career choices. Responses were weighted from "strong interest" to "strongly negative interest." A ratio of preference is summarized in Table 8 below. The most favored career choice was the field of business. engineering and architecture, and computer science closely followed along with science, university professor and writer. Negative interest was expressed toward careers in music, sports, military, homemaking, religion, and agriculture. These students expressed positive interest in 13 of the 19 career choices presented. It was interesting to note that these students rated "sports" negatively as a career choice, but they did win substantial sports awards and honors in high school.

TABLE 8

What is your career interest?

	% Strong Interest	% Some	% No Interest	% Neg've	% Strong Negative	Weighted Ratio
Business	15	47	22	9	8	3.44
Engineer	22	23	13	9	8	2.72
Architect	9	44	25	16	5	2.39
Computer Sci.	16	33	29	13	9	2.22
Science	24	25	20	11	15	1.80
University Prof	16	34	18	14	16	1.52
Writer	16	32	16	15	16	1.41
Education	10	30	14	24	20	0.84
Government	8	27	23	22	19	0.76
Law	9	27	22	24	19	0.76
Psychology	8	29	20	20	23	0.74
Medicine	13	15	28	32	11	0.70
Artist	9	24	22	18	24	0.69
Music	11	19	15	20	34	0.50
Sport	8	14	24	14	38	0.36
Military	6	14	10	22	48	0.25
Homemaker	1	13	24	34	25	0.20
Religion	5	3	8	19	65	0.09
Agriculture	0	3	22	35	41	0.03

Discussion.

The impact of the CSUS Academic Talent Search Program was viewed by former participants as highly positive after an interval of four years. Academic acceleration through this program was associated with positive changes in school grades (GPA), interest in school and learning, and in students' ability to get along with mental peers and adults. Social relationships with peers, acceptance of self, and emotional stability generally showed moderately favorable rather than unfavorable changes. During high school, the respondents were active in a wide variety of extracurricular activities, and they participated in free-time activities which appeared to be typical for the age group. They had positive self-concepts, viewed themselves as being "in control" of their lives, and had formulated plans for the future, including career goals. A list of their career interests was topped by business, engineering, and architecture. These students were least interested in argriculture, religion or homemaking as careers. They received awards and honors in sports and a wide variety of academic fields. This study did not reveal any pattern of social maladjustments or harmful results from the acceleration experienced by these students. To the contrary, the impact of acceleration through this program was overwhelmingly positive in the academic and affective areas examined.

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Appendix

In addition to the multiple-choice questions, the survey also contained open-ended items to questions about how important the Academic Talent Search Program was to participants. Representative samples of the responses are reported below.

"Has your participation in the CSUS Academic Talent Search been important to you in any of these ways? Please explain."

A. Academic goals and achievement.

It relieved me from the boredom I had been suffering in 7th and 8th grade. The expository writing class has helped me tremendously throughout high school. The summer taught me to question more things and to be a better critical thinker.

Academic Talent Search had furthered my interest in learning. My academic goals seemed more obtainable, and I began to work harder to achieve them. With confidence, I began accomplishing my goals.

Academically Talent Search has helped me to grow. It has, however, made me feel as if I am stagnating in the course of the regular school year. I want to become an educator so that I can offer students more of an opportunity to continue growing.

Talent Search has contributed greatly to my future goals in education. I have attended a small private school, but because of the size of the school and the financial limitations we did not have the benefit of an extensive Math and Foreign Language program. Talent Search has given me the opportunity to take these courses that were not available to me at my school.

I have learned to structure my time more efficiently as a result of the responsibility involved in taking Talent Search classes.

After taking writing classes from CSUS, I went on to win first place in the District Writer's Fair in junior high and to receive the highest grade in my English class in high school.

The CSUS experience has allowed me to take Calculus, not only in my junior year, but at the age of 15! This has allowed me extra time to take classes in English and Music.

Your program did not affect me in any way until I reached college. Your Expository Writing class helped me in my college English classes.

Some neutral or negative responses included:

No, not really. I took mathematics through the Talent Search, but found that while I am relatively talented in the mathematics area, I have no interest in the field.

It hurried my academic achievement, but since my high school was not prepared to deal with a student high in its classes who did not want to graduate early, it ultimately messed me up, since I had no where else to turn to further my education while I was still in high school.

B. Career or College Aspirations

It gave me exposure to the University campus and a feel for what classes would be like. I don't think that I would have entered college as soon as I did if I hadn't been involved in project Talent Search.

Has shown me that if I try hard enough I can do anything or be anything I want to be.

Talent Search has given me the confidence to apply to colleges I would have not before. I now plan to go to college and hopefully earn a doctorate.

Being a Math teaching assistant gave me a chance to see what it would be like to be a teacher, which is what I have decided to become.

Getting ahead in math was very important for my preparation in high school for college. Working towards an aerospace engineering major (into which I have been accepted) was a goal much helped by early math courses.

My experiences with TS will help increase my chances of succeeding in college. I plan to major in international relations and all the classes which I took at TS will benefit me in this field.

I'm seriously considering a career in broadcasting, so the writing classes I took at CSUS will definitely help me in that area.

Some Neutral or negative comments included:

I don't think it has affected my aspirations. They were formed within me earlier by my parents and by myself. Taking a few classes did not change anything.

Well, I definitely don't want to be a writer.

I did not begin to explore these aspirations until long after your program. It had no effect.

The Talent Search had little effect on my career or college aspirations.

I made my college choice without the help of my experience in Talent Search, but I am still not sorry that I took the courses.

No, I was always planning to go to a good college (I am at MIT).

C. Personally, socially or in other ways.

I attend an all-girls school. The coeducational atmosphere of the program helped me feel more comfortable in a boy/girl class setting. I felt comfortable speaking out and asking questions. This helped my later school plans.

I met and got to know several people very well, and was overawed at the talents and abilities of others. I began to see that the differences between people are wonderful things.

TS has helped me realize more of my potential academically and at the same time made me realize that I was not as smart as I thought I was. This helped me not to take my studies for granted and that the competition in college will be a lot harder. Socially I feel that I have broadened my thinking, which has helped me be a lot more aggressive and confident in myself.

I made one new friend that I still keep in contact with. It gave me an opportunity to take the SAT which I feel that the experience will be benefitted when I take it this spring.

I have learned to be comfortable around people.

TS has made me realize that there are people smarter than I am, which allows me to relate to people who are not as talented as I am.

I have found that I can interact with others and convey my thoughts clearly and concisely. I met many new and continuing friends who will surely succeed in the future.

Neutral or negative comments included:

It made me more of a nobody and less tolerated at my regular school.

Not much effect. By the time I participated I had already skipped a grade and I was hanging out with mental rather than physical peers.

The T.S. seemed only to accelerate my mathematical ability and has not affected me any other way as I can see it.

Socially, TS has hurt me, I suppose. Because of a heightened awareness of my abilities and the abilities of a wider scope of students than I meet in my regular classes, I have spent more time studying and no time with peers.